NAKO MARU

GEN. BOX No 520

(21)

ロイド協會ニ提出

Ship's Name or No.	388.
Name of Drawing	REVISED PLAN OF CONSTRUCTION PROFILE AND DECK PLANS.
Drawing No.	Sending No.

Nako Maru

Yka 5384.

8. 小野 5.21

浦賀船渠株式會社 設計部 昭和 年 月 日 URAGA DOCK CO. LTD.

[illegible]

CONSTRUCTION PROFILE & DECK PLANS.

SCALE 1/96 (SHEET No1)

N.B:- UNDER DECK MACHINERIES TO BE SUITABLLY STRENGTHENED BY PILLARS OR GIRDERS

BRIDGE DECK
UPPER DECK
2ND DECK
FORECASTLE DECK
2-W.S.P.
1-W.S.P.
F.W.T.
BRIDGE DECK
UPPER DECK
2ND DECK
INNER BOTTOM
NAVIGATION BRIDGE
BOAT DECK
UPPER BRIDGE DECK
POOP DECK
FORECASTLE DECK
SHAFT TUNNEL

CARGO HATCH.

ITEMS \ DECKS	ON BRIDGE DECK		ON UPPER DECK						ON SECOND DECK					REMARKS
No OF HATCH WAY	No3	No4	No1	No2	No3	No4	No5	No6	No1	No2	No3	No5	No6	
SIZE OF HATCHWAY	8.800×6.100	7.200×6.700	5.850×5.000	11.200×6.100	9.600×6.100	8.000×6.700	11.200×6.100	7.200×5.500	5.850×5.000	11.200×6.100	9.600×6.100	11.200×6.100	7.200×5.500	
No OF WEB					6	5			3	7	6	7	4	
SPACING OF WEB					1.371	1.333			1.462	1.400	1.371	1.400	1.440	
WEB BEAMS														
WEB BEAMS – WEB PLATE					455×.36"	~~430~~ 445×.36"			380×.34"	480×.36"	480×.36"	480×.36"	430×.36"	BOTH SIDE FULL WELD
WEB BEAMS – TOP & BOTTOM BAR					230×.71"F.B.	230×~~.80~~ .67"F.B.			230×.50"F.B.	230×.55"F.B.	230×.55"F.B.	230×.55"F.B.	230×.50"F.B.	
SIDE COAMING	.44"	.44"	.44"	.44"			.44"	.44"			11×250×90B.A.			
END COAMING	.44"	.44"	.44"	.44"			.44"	.44"			"			
SIDE COAMING ANG	12×90×90	12×90×90	12×90×90	12×90×90	9"×3½"×.475 B.A.	9"×3½"×.475 B.A.	12×90×90	12×90×90	9"×3½"×.475 B.A.	9"×3½"×.475 B.A.	9"×3½"×.475 B.A.	9"×3½"×.475 B.A.	9"×3½"×.475 B.A.	
END COAMING ANG	"	"	"	"	"	"	"	"	"	"	"	"	"	
HATCH BOARD	STEEL COVER	STEEL COVER	STEEL COVER	STEEL COVER	65 O.P.	65 O.P.	STEEL COVER	STEEL COVER	75 O.P.	75 O.P.	75 O.P.	75 O.P.	75 O.P.	
STIFF TO SIDE COA.ING	9.5×180×75B.A.	9.5×180×75B.A.	9.5×180×75B.A.	9.5×180×75B.A.			9.5×180×75B.A.	9.5×180×75B.A.						
" " END "	"	"	"	"			"	"						

APPROVED
LLOYD'S REGISTER OF SHIPPING
JUN 8 1933
KOBE

for H.J. Cos.

No388

一般構造圖

尺度 1/96

工事區分 船 號

竹内

8.5

Y.D.C. 1

造船

1155

2

GEN. BOX No 520

(20)

ロイド協會ニ提出

Ship's Name or No. 388.

Name of Drawing REVISED PLAN OF MIDSHIP SECTION

Drawing No.

Sending No.

Nako Maru

Yka 5384.

浦賀船渠株式會社
設計部
昭和 年 月 日
URAGA DOCK CO.

8. 小野 5.24

御承認用

MIDSHIP SECTION

SCALE 1/24

PRINCIPAL DIMENSIONS

LENGTH FROM F.P. TO AFTER END OF CRUISER STERN	141.500
LENGTH P.P.	136.000
BREADTH MLD.	19.000
DEPTH " (FROM TOP OF KEEL)	10.500

N.B. THICKNESS OF PLATES ARE SHOWN IN INCHES, ALL OTHER DIMENSIONS IN METRIC UNITS.
thickness of plate of Casing & deck house are given in milimeter

CLASS. TEISHINSHŌ'S 1ST CLASS & ✠ 100 A1 OF LLOYD.

SCANTLING NUMERALS

L	446.22
B	62.34
D	34.45
1ST LONGITUDINAL NUMERAL L×D	15,372.28
2ND " " L×(B+D)	43,189.63
PROPORTION TO UPPER DECK L/D	12.95
" " BRIDGE " L/D	10.50
FRAMING DEPTH IN HOLD	21.19
RULE HEIGHT OF TANK SIDE BRACKET (71)	5.92
ACTUAL " " " " (86)	7.16
HALF EXCESS OF TANK SIDE BRACKET	.62
(d) FOR HOLD FRAME	20.57
(d) IN ENGINE ROOM	18.00

FORGING & CASTING

STEM. CURVED PLATE & ROLLED BAR AS PER PLAN.
STERN FRAME. CAST STEEL AS PER DETAIL PLAN.
RUDDER. DOUBLE PLATE BALLANCED RUDDER AS PER DETAIL PLAN.

EQUIPMENT NUMBER

L×(B+D)	446.22×(62.34+34.45)	43,189.63
BRIDGE	173.24×8.04×.75	1,044.64
FORECASTLE	40.58×7.55×.75	229.78
POOP	23.23×7.55×.75	131.54
DECK HOUSE	204.73×7.71×.50	789.23
EQUIPMENT NUMBER.		45,384.82

EQUIPMENTS

3 - BOWER ANCHORS (STOCKLESS)	C.W.T. 77½ EACH
1 - STREAM ANCHOR COMMON (EX. STOCK)	C.W.T. 22.00
300 FMS. OF 2 7/16" STUD CHAIN CABLE FOR BOWER ANCHORS	
1 - 120 FMS. OF 4½" × 6 × 24 SPECIAL FLEXIBLE STEEL WIRE ROPE FOR STREAM ANCHOR	
1 - 130 FMS. OF 5¼" × 6 × 24 " " " " " TOW LINE.	
3 - 100 FMS. OF 3" × 6 × 12. FLEXIBLE STEEL WIRE ROPE FOR HAWSERS	EXTRA HAWSER
2 - 100 FMS. OF 2¾" × 6 × 12 " " " " " WARPS	
4 - 100 FMS. OF 8" M.R. FOR WARPS	

ALL BULB ANGLES & CHANNELS TO BE OF GERMAN STANDARD.

SHELL PLATING

	3/5 L⊗	1/2 L⊗	ENDS	RIVETING	REMARKS
FLAT PLATE KEEL	1.321×.87"		.78"	4R-4R	
UPPER DECK SHEER STRAKE		1.300×1.00"	.47"	5R-3R	810×.80" DOUBLING PL. AT BREAKS .68" IN WAY OF BRIDGE
STRAKE BELOW SHEER STRAKE		1.750×.81"	.47"	4R-3R	
BOTTOM PLATE A. - E.		.70"	.50	4R-3R	
SIDE PLATE F. - J.		.68"	.47	3R-3R	
BRIDGE SIDE PLATE		.63"		4R	
FORECASTLE SIDE PLATE			.44	1R	
POOP SIDE PLATE			.40	1R	.47 IN WAY OF CRUISER STERN
BOSS PLATE			.77"	4R	
AFTER HOOD PLATE			.67	3R	

FRAMING

SPACING OF FRAMES 600 IN PEAKS. 650 FORWARD OF 3/5 L⊗ ELSWHERE 800 SPACED

HOLD FRAMES 800 F.S.	12/15.5×300×90 C.H.	ALL TO SECOND DECK
" " 650 F.S.	12/15.5×300×90 C.H.	" " " "
FRAMES IN ENGINE ROOM	9/13×300×90 C.H.	" " " "
FRAMES IN {CHAIN LOCKER ~~[illegible]~~ / DEEP TANK	12/15.5×300×90 C.H.	~~" " " "~~ " " " WITH HORIZONTAL GIRDER
FRAMES IN {FORE PEAK / AFT "	.475"×9"×3½" B.A.	ALL TO F'CLE DECK. UPPER & POOP DECK ALTLY
TWEEN DECK FRAMES	.475"×9"×3½" B.A.	ALTERNATELY TO BRIDGE DECK EXCEPT 4 F.S. AT ENDS OF BRIDGE WHERE TO EVERY FRAME
F'CLE SIDE FRAMES.	.475×180×3½" A.	9"×3½"×.475 B.A. TO BE CUT AT 180 m/m IN WEB. IN LIEU OF INTERMEDIATE FRAME
INTERMEDIATE FRAMES IN BRIDGE	12×150×90 A.	SCARPHED BELOW.
" " IN POOP	10.5×150×90 A.	NO END ATTACHMENT.
FRAMES IN CRUISER STERN	.475×9"×3½" B.A.	UPPER & POOP DECK ALTLY
FRAMES ABOVE WING & TUNNEL TOP	8.5/13.5×230×90 C.H.	
FRAMES IN WING TANK	8.5/13.5×230×90 C.H.	
FRAMES IN TUNNEL RECESS	8.5/13.5×230×90 C.H.	

DECKS

		½ L⊗	ENDS	RIVETING	REMARKS
UPPER DECK	STRINGER PLATE	1.930×1.00"	1.015×.44"	5R-3R	1.220×.76" D. PLATE TO BE FITTED AT BREAKS
	STRINGER ANGLE	25×200×200	11×90×90		
	DECK PLATE ABREAST LINE OF OPENING	.72"	.36"	4R-1R	
	" " WITHIN " " "	.46"	.36"	2R-1R	
	" " UNDER POOP & F'CLE WHERE BEAM SPACE 1.200		.38"	1R	
	STRINGER PLATE UNDER BRIDGE	1.270×.43"		3R	
	SHELL ANGLE	11×90×90			
	BARS INSIDE OF FRAME	10×75 F.B.			ELECTRICALLY WELD
	DECK PLATE ABREAST LINE OF OPENING	.39"		2R	
	" " WITHIN " " "	.34"		2R	
SECOND DECK	STRINGER PLATE	1.270×.43"	965×.36"		ELECTRICALLY WELD
	SHELL ANGLE	11×90×90	9×90×90		
	BARS INSIDE OF FRAME	10×75 F.B.	10×75 F.B.		ELECTRICALLY WELD
	DECK PLATE ABREAST LINE OF OPENING	.39"	.32"		.41 AT TOP OF DEEP TANK 2R. SEAM & BUTT
	" " WITHIN " " "	.34"	.32"		" "
	STRINGER PLATE IN WAY OF BRIDGE	1.270×.38"			ELECTRICALLY WELD
	SHELL ANGLE	11×90×90	9×90×90		
	DECK PLATE	.34"			ELECTRICALLY WELD
BRIDGE DECK	STRINGER PLATE	1.600×.56		3R	
	STRINGER ANGLE	14×130×130			
	DECK PLATE ABREAST LINE OF OPENING	.46		2R	
	" " WITHIN " " "	.42		2R	
F'CLE DECK	STRINGER PLATE		915×.40"	1R	
	" ANGLE		10×90×90		
	DECK PLATE		.40"	1R	BEAM FITTED TO EVERY FR.
	DECK PLATE UNDER WINDLASS		.50"	1R	
POOP DECK	STRINGER PLATE		952×.40"	1R	
	" ANGLE		10×90×90		
	DECK PLATE		.40"	1R	BEAM FITTED EVERY FR.

WELDING NOTE.

LIGHT WELD CONTINUOUS.
BUTT FULL WELD.
BOTH SIDE FULL WELD.
ONE SIDE FULL WELD.
a/b TACK WELD.

Note / The welds in tack welding are not to be less than 75 m/m long, spaced as per Welding Scheme approved 27.5.33

APPROVED
LLOYD'S REGISTER OF SHIPPING
JUN 8 1933
KOBE
[illegible]
for H. J. Cox

PANTING ARRANGEMENT.

FORWARD OF COLLISION BHD. (EXCEPT IN CHAIN LOCKER)

PANTING STRINGER TO BE FITTED AT 1.828 APART	965×.36"
SHELL LUG	11×130×130

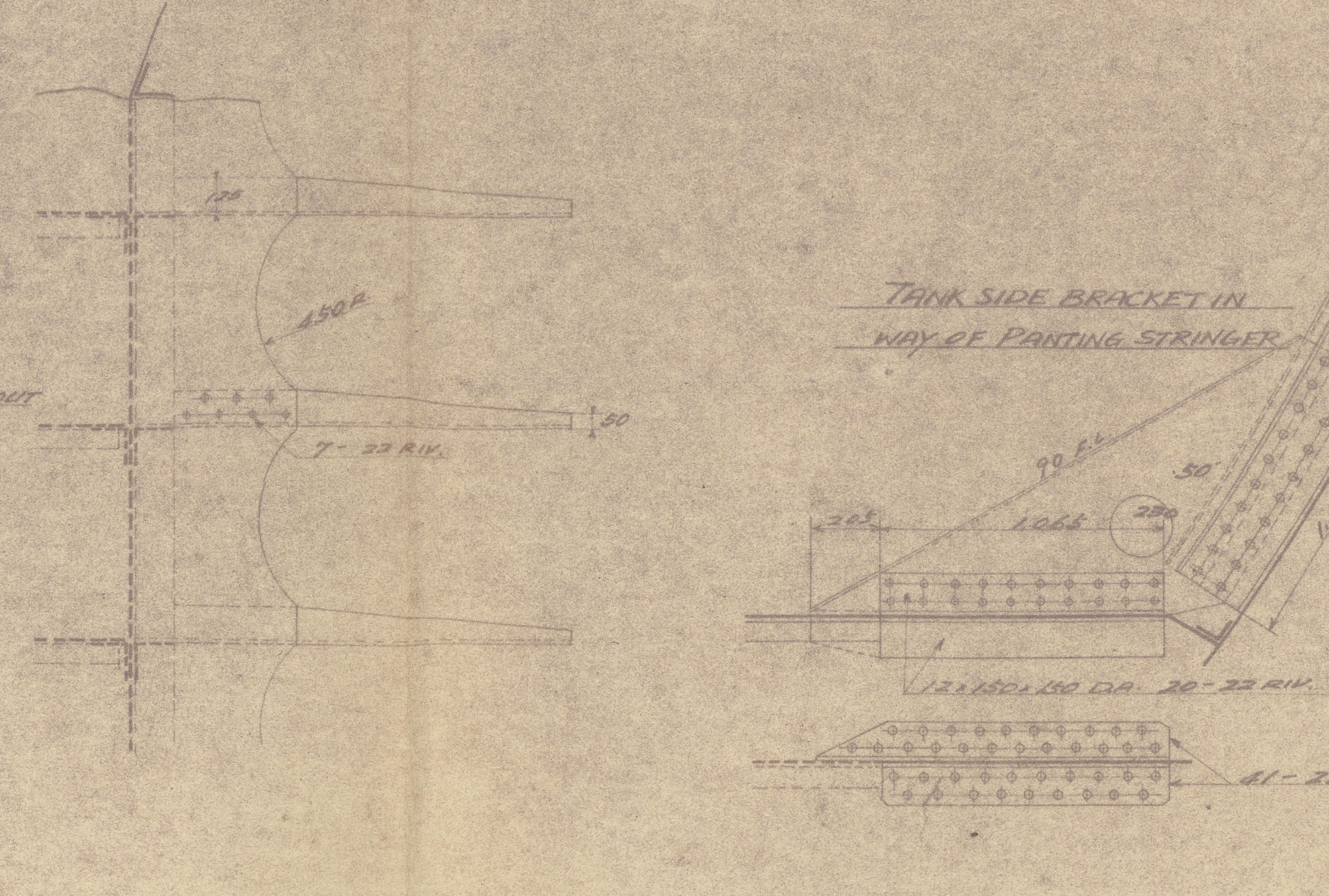
PANTING BEAMS (ON ALT. FRAME) 300×90×9×13 [KNEES 838×635×.46" 65 FL. 7-22 RIV.
BRACKET TO FRAME WHERE NO PANTING BEAMS FITTED 483×.40" 50 FL. 5-19 RIV.

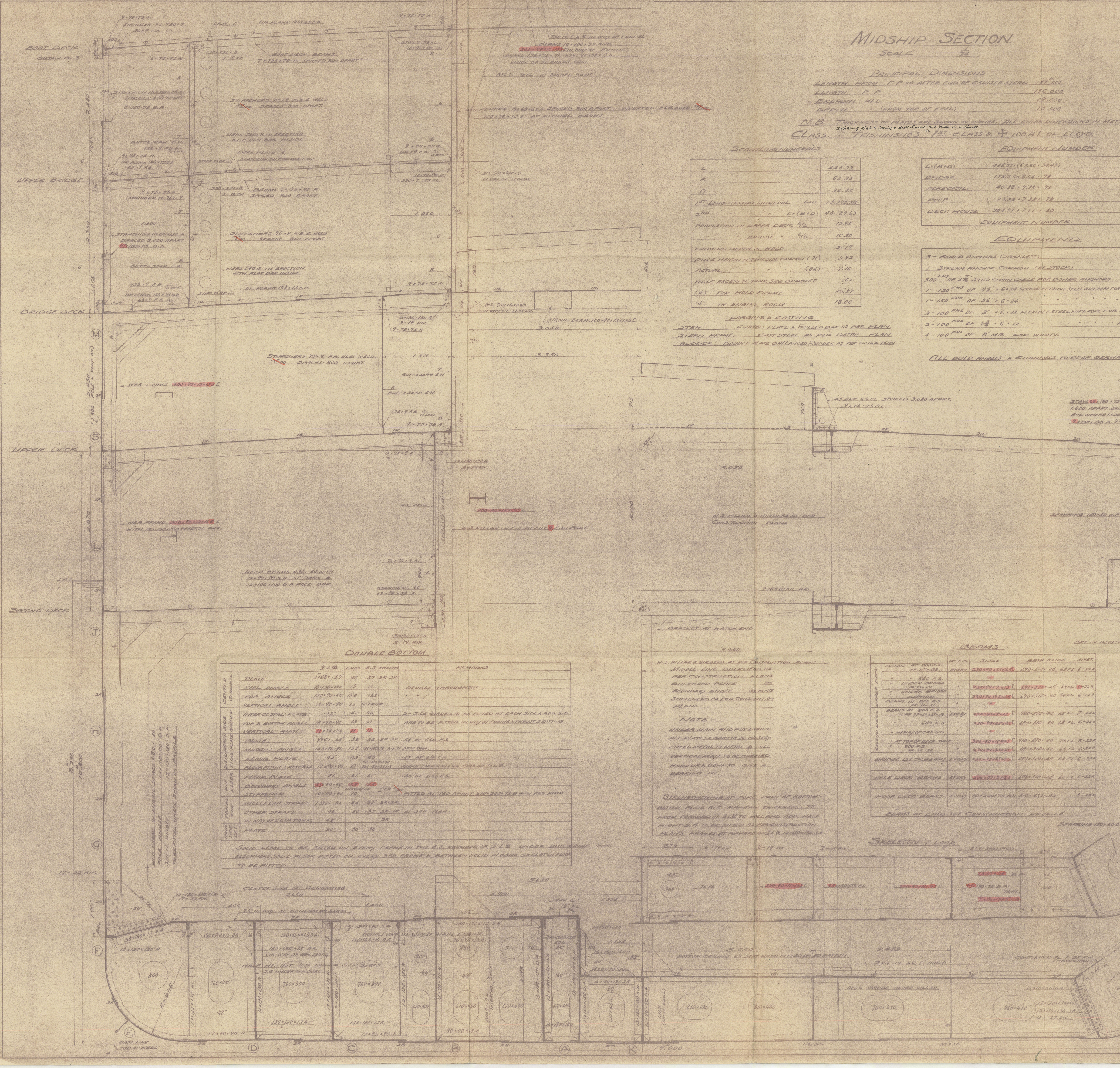
ABAFT COLLISION BHD.

DEEP FRAME SYSTEM (90.500 FROM STEM)
13/15.5×300×90 C.H. WITH 12×150×90 REVERSE ANGLE. DEPTH OF GIRDER 330 m/m
SIDE STRINGER TO BE FITTED AT 1.828 APART. FACE BAR 7"×3½"×.525" A
SHELL ANG. 12×90×90 A INT. PLATE .44"
FORWARD OF ½ L⊗ BOTTOM FRAMES TO BE CONTINUOUS FROM CENTER LINE TO MARGIN PLATE.

IN AFT PEAK

PANTING STRINGER TO BE FITTED AT 2.430 APART & ARRANGEMENT TO BE SIMILAR AS IN FORE PEAK.





DOUBLE BOTTOM

		½ L⊗	ENDS	E.S.	RIVETING	REMARKS
CENTER GIRDER	PLATE	1.168×.57"	.46"	.57	3R-3R	
	KEEL ANGLE	15×130×130	15	15		DOUBLE THROUGHOUT.
	TOP ANGLE	13.5×90×90	13.5	13.5		" "
	VERTICAL ANGLE	13×90×90	13	12×130×130		
SIDE GIRDER	INTERCOSTAL PLATE	.42"	.42"	.46		2 - SIDE GIRDER TO BE FITTED AT EACH SIDE & ADD. S.G.
	TOP & BOTTOM ANGLE	13×90×90	13	13		ARE TO BE FITTED IN WAY OF ENGINE & THRUST SEATING
	VERTICAL ANGLE	11×75×75	11	11		
MARGIN PLATE	PLATE	990×.55"	.55"	.55	3R-3R	.56" AT 650 F.S.
	MARGIN ANGLE	13.5×90×90	13.5	130×130×15 E.S. OR DEEP TANK.		
SOLID FLOOR	FLOOR PLATE	.43"	.43"	.43		.42" AT 650 F.S.
	FLOOR FRAME & REVERSE	13×90×90	13	FR. 13×90×90 REV. 130×130×12		FRAME 130×130×12 S.A. FORD. OF ½ L⊗.
W.T. FLOOR	FLOOR PLATE	.51"	.51"	.51		.50" AT 650 F.S.
	BOUNDARY ANGLE	13.5×90×90	13.5	13.5		
	STIFFENER	10×90×90	10	INVERTED]		FITTED AT 760 APART & 10×200×75 B.A. IN ENG. ROOM
TANK TOP	MIDDLE LINE STRAKE	1.372×.52	.44"	.52"	3R-2R	
	OTHER STRAKE	.45	.40"	.52	2R-1R	.41 SEE PLAN.
	IN WAY OF DEEP TANK	.45			2R	
TANK SIDE BKT.	PLATE	.50	.50	.50		

SOLID FLOOR TO BE FITTED ON EVERY FRAME IN THE E.S. FORWARD OF ½ L⊗ UNDER BHD. & DEEP TANK. ELSEWHERE SOLID FLOOR FITTED ON EVERY 3RD. FRAME & BETWEEN SOLID FLOORS SKELETON FLOOR TO BE FITTED.

W.S. PILLAR & GIRDERS AS PER CONSTRUCTION PLANS
MIDDLE LINE BULKHEAD AS PER CONSTRUCTION PLANS

BULKHEAD PLATE	.30
BOUNDARY ANGLE	10×75×75

STIFFENERS AS PER CONSTRUCTION PLANS

- NOTE -

UNDER MAIN AND AUX. ENGINE ALL PLATES & BARS TO BE CLOSELY FITTED METAL TO METAL & ALL VERTICAL PLATE TO BE CARRIED HARD UP & DOWN TO GIVE A BEARING FIT.

STRENGTHENING AT FORE PART OF BOTTOM:-
BOTTOM PLATE A-C MAINTAIN THICKNESS .77 FROM FORWARD OF ½ L⊗ TO COLL. BHD. ADD. HALF HIGHT S.G. TO BE FITTED AS PER CONSTRUCTION PLANS. FRAMES AT FORWARD OF ½ L⊗ 12×130×130 S.A.

BEAMS

		ON FR.	SIZES	BEAM KNEE	RIVET.
UPPER DECK	BEAMS AT 800 F.S. FR. 117-138	EVERY	230×90×8.5×13.5 [	690×510×.40" 65 FL.	6-22R.
	" " 650 F.S.	"	"	"	"
	" UNDER BRIDGE FR. 93-101	"	250×90×9×13 [	690×570×.40" 65 FL.	6-22R.
	" UNDER BRIDGE ELSEWHERE	"	230×90×8.5×13.5 [	690×510×.40 65 FL.	6-22R.
	BEAMS AT 800 F.S. FR. 11-51.	"	"	" "	"
SECOND DECK	BEAMS AT 800 F.S. FR. 37-52 & 89-138	EVERY	250×90×9×13 [	750×570×.40 65 FL.	7-22R.
	" " 650 F.S.	"	230×90×8.5×13.5 [	690×510×.40" 65 FL.	6-22R.
	" IN WAY OF CASING	"	"	" "	"
	" AT TOP OF DEEP TANK	"	300×90×10×15.5 [	910×690×.40" 75 FL.	8-22R.
	" " 800 F.S. FR. 10-26	"	230×90×8.5×13.5 [	690×510×.40 65 FL.	6-22R.
BRIDGE DECK BEAMS		EVERY	230×90×8.5×13.5 [	690×510×.40 65 FL.	6-22R.
F'CLE DECK BEAMS		EVERY	200×90×8×13.5 [	690×510×.40 65 FL.	6-22R.
POOP DECK BEAMS		EVERY	10×200×75 B.A.	610×432×.42	5-22R.

BEAMS AT ENDS SEE CONSTRUCTION PROFILE.

No. 388

中央切斷

縮尺 1/24

昭和8年4月

8年2月20日

Kako Maru

Yka. 5384

ロイド協會ニ提出

Ship's Name or No.	388.
Name of Drawing	RUDDER & STERN FRAME.
Drawing No.	Sending No.

14

GEN. DOC. No 520

浦賀船渠株式會社
設計部
昭和 年 月 日
URAGA DOCK CO. LTD.

山本

8.
小野
4.14

御承認用

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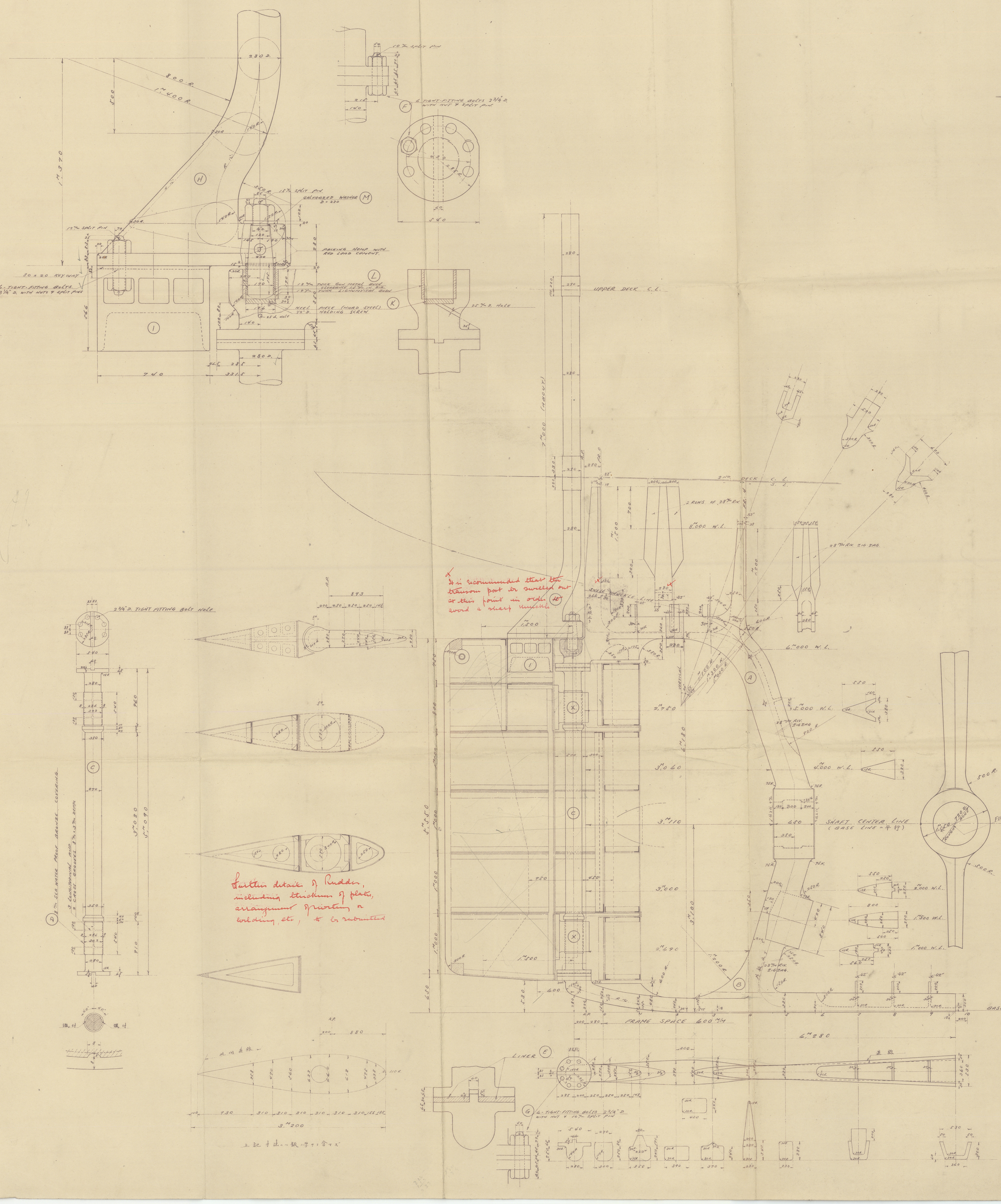
Lloyd's Register
Foundation

007088-007099-0222


UPPER DECK C.L.
DECK C.L.
6,000 W.L.
5,000 W.L.
4,000 W.L.
3,000 W.L.
2,000 W.L.
1,000 W.L.
SHAFT CENTER LINE (BASE LINE ニ平行)
BASE LINE
FRAME SPACE 600 m/m
FINISHED DIA 765 m/m
LINER
2¾" D. TIGHT FITTING BOLT HOLE
6-TIGHT-FITTING BOLTS 3¾" D. WITH NUTS & SPLIT PINS
6-TIGHT-FITTING BOLTS 2¾" D. WITH NUT & SPLIT PIN
外板止リ
A
B
C
D
E
F
G
H
I
J
K
L
M
N

It is recommended that the transom post be swelled out at this point in order to avoid a sharp knuckle.

Further details of Rudder, including thickness of plates, arrangement of riveting or welding, etc., to be submitted

S. 220, 388 & 222.

STERN FRAME & RUDDER.

FOR

STEEL SINGLE SCREW CARGO MOTOR VESSELS.

PARTICULARS.

LENGTH (PP.)	136.M000
BREADTH (MLD.)	19.M000
DEPTH (")	10.M500
DRAUGHT (")	8.M230
MAX. SERVICE SPEED	15K.
RUDDER AREA	17.M²436
RUDDER ANGLE	35°

RUDDER AREA, &C.

WHERE	RUDDER AREA A	C.G. OF A FROM PINTLE D	MOMENT A × D
ABAFT C.L. OF PINTLE	2.M120 × 5.M550 = 11.M²766	+1.M060	+12.M³47 (440 FT³)
BEFORE C.L. OF PINTLE	5.M250 × 1.M080 = 5.M²670	-0.M540	- ~~3.06~~ 2
TOTAL	17.M²436		+9.M³41
MAX. SERVICE SPEED			15K.
RULE DIAMETER OF STOCK			10¾" (= 273 m/m)
ACTUAL " " "			280 m/m

1.014

338

Trial speed 18 Knots see [illegible] plan.

MATERIAL AND APPROXIMATE WEIGHT.

	MARK	DESCRIPTION	MATERIAL				REMARKS.
			CAST STEEL	FORGED STEEL	MILD STEEL	OTHERS	
STERN FRAME	Ⓐ	1 - STERN POST (UPPER PART)	10.T772K.				ONE CAST ニスルモ可ナリ
	Ⓑ	1 - " " (LOWER PART)	5.T411K.				
	Ⓒ	1 - RUDDER SHAFT		2.T609K.			RUDDER ニ取付ケ2箇ノ BEARING Ⓧハ別図ニ依ル
	Ⓓ	2 - BRONZE COVERINGS FOR RUDDER SHAFT				BRONZE 67K.	
	Ⓔ	2 - LINERS FOR (RUDDER SHAFT		55K.			
	Ⓕ	6 - UPPER COUPLING BOLTS WITH NUT & SPLIT PIN		92K.			
	Ⓖ	6 - LOWER COUPLING BOLTS WITH NUT & SPLIT PIN		97K.			
RUDDER	Ⓗ	1 - RUDDER HEAD		4.T105K.			
	Ⓘ	1 - RUDDER COUPLING	876K.				
	Ⓙ	1 - PINTLE WITH (NUT & SPLIT PIN		93K.			
	Ⓚ	1 - HEEL PIECE (WITH HOLDING SCREW				HARD STEEL 7K.	
	Ⓛ	1 - BUSH FOR PINTLE				GUN METAL 11K.	
	Ⓜ	1 - WASHER " "			5K.		
	Ⓝ	6 - COUPLING BOLTS WITH NUTS & SPLIT PINS		166K.			
		SUM	17.T059K	7.T217K.	5K.		

注意

一、本図記入ノ寸法ハ凡テ仕上リ寸法ヲ示ス。
一、材料及製品ニ就テハ「ロイド」及帝國海事協会規定ノ試験ニ合格セルモノタル事。
一、着色ノ箇所ハ寸法通リ本仕上ゲトシ、他ハ荒仕上ゲノ事。
一、「リグナムバイタ、ブッシュ」及舵体ハ供給スルニ及バズ。
一、寸法ハ承認ニ依リ多少変更スル事アルベシ。
一、左表ニ掲グル数量及重量ハ凡テ壹隻分ノモノヲ示ス。

Minya 388

Rudder & Stern Frame

APPROVED
LLOYD'S REGISTER OF SHIPPING
APR 26 1933
KOBE

[illegible] for H.J. Cox

浦賀ト協議ノ上（[illegible]）

出圖				工事區分	H.1		
造船	1	造機	2	修理		艦本	
新造	1	錬鉄		船渠		船主	
現図	1	鋳造		運輸		監督	
木工		銅工		製帆		遞信	
艤装		製罐				ロイド	
造鉄		旋盤		監査	1	海協	
機械		仕上		重量		承認	
取付	1	工具		扣	1.X	註文	
鋲鉄		電氣		消架	2	註文	
鎔接						見積	6

船尾骨栈及舵

尺度	1 : 25 1 : 10
工事番号	S. 220, 388 & 222.
橫濱船渠株式會社 設計課	
課長	
係長	[illegible]
係員	
製図	海上
年月日	昭和8年3月25日
出図	
類別番号	H211
図面番号	浜H845

1,230 × 800